



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-1025; Directorate Identifier 2013-NM-096-AD;  
Amendment 39-17894; AD 2014-13-18]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model DHC-8-102, -103, and -106 airplanes; and DHC-8-200 and DHC-8-300 series airplanes. This AD was prompted by a report of a beta warning horn (BWH) system failing to activate when the beta mode was triggered. This AD requires modifying the BWH microswitch installation. We are issuing this AD to prevent the inadvertent activation of ground beta mode during flight, which could lead to engine overspeed, engine damage or failure, and consequent reduced controllability of the airplane.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at

<http://www.regulations.gov/#!docketDetail;D=FAA-2013-1025> or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

**FOR FURTHER INFORMATION CONTACT:** Kent Fredrickson, Aerospace Engineer, Propulsion and Flight Test Branch, ANE-173, FAA; NY Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7364; fax 516-794-5531.

## SUPPLEMENTARY INFORMATION:

### Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model DHC-8-102, -103, and -106 airplanes; and DHC-8-200 and DHC-8-300 series airplanes. The NPRM published in the Federal Register on December 11, 2013 (78 FR 75291).

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2012-01R1, dated March 6, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition certain Bombardier, Inc., Model DHC-8-102, -103, and -106 airplanes; and DHC-8-200 and DHC-8-300 series airplanes. The MCAI states:

\* \* \* \* \*

During an on-ground Beta Warning Horn (BWH) system check conducted in the wake of an in-flight Beta range operation incident on a DHC-8 Series 200 aeroplane, it was discovered that the BWH system failed to activate when the Beta mode was triggered.

An investigation by Bombardier had determined that the deformation of the flexible center console cover could cause the BWH system triggering microswitch to malfunction, resulting in dormant failure of the BWH system. To mitigate the safety risk by minimizing the risk exposure period, [TCCA] \* \* \* mandate[d] a 50 hours periodic operational test of the BWH system functionality.

To address the root cause of the subject problem, Bombardier has issued Service Bulletin (SB) 8-76-33 that modifies the BWH microswitch installation by replacing the BWH microswitch attachment bracket with a new, more robust bracket that is not affected by deformation of the center console cover. [Canadian] AD CF-2012-01 is therefore revised to mandate compliance with SB 8-76-33 as terminating action for the 50 hours periodic operational test requirement.

The unsafe condition is the inadvertent activation of ground beta mode during flight, which could lead to engine overspeed, engine damage or failure, and consequent reduced controllability of the airplane. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-1025-0002>.

#### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (78 FR 75291, December 11, 2013) or on the determination of the cost to the public.

#### **“Contacting the Manufacturer” Paragraph in this AD**

Since late 2006, we have included a standard paragraph titled “Airworthy Product” in all Mandatory Continuing Airworthiness Information (MCAI) ADs in which the FAA develops an AD based on a foreign authority’s AD.

The MCAI or referenced service information in an FAA AD often directs the owner/operator to contact the manufacturer for corrective actions, such as a repair. Briefly, the Airworthy Product paragraph allowed owners/operators to use corrective actions provided by the manufacturer if those actions were FAA-approved. In addition,

the paragraph stated that any actions approved by the State of Design Authority (or its delegated agent) are considered to be FAA-approved.

In the NPRM (78 FR 75291, December 11, 2013), we proposed to prevent the use of repairs that were not specifically developed to correct the unsafe condition, by requiring that the repair approval provided by the State of Design Authority or its delegated agent specifically refer to this FAA AD. This change was intended to clarify the method of compliance and to provide operators with better visibility of repairs that are specifically developed and approved to correct the unsafe condition. In addition, we proposed to change the phrase “its delegated agent” to include a design approval holder (DAH) with State of Design Authority design organization approval (DOA), as applicable, to refer to a DAH authorized to approve required repairs for the proposed AD.

No comments were provided to the NPRM (78 FR 75291, December 11, 2013) about these proposed changes. However, a comment was provided for another NPRM, Directorate Identifier 2012-NM-101-AD (78 FR 78285, December 26, 2013). The commenter stated the following: “The proposed wording, being specific to repairs, eliminates the interpretation that Airbus messages are acceptable for approving minor deviations (corrective actions) needed during accomplishment of an AD mandated Airbus service bulletin.”

This comment has made the FAA aware that some operators have misunderstood or misinterpreted the Airworthy Product paragraph to allow the owner/operator to use messages provided by the manufacturer as approval of deviations during the accomplishment of an AD-mandated action. The Airworthy Product paragraph does not

approve messages or other information provided by the manufacturer for deviations to the requirements of the AD-mandated actions. The Airworthy Product paragraph only addresses the requirement to contact the manufacturer for corrective actions for the identified unsafe condition and does not cover deviations from other AD requirements. However, deviations to AD-required actions are addressed in 14 CFR 39.17, and anyone may request the approval for an alternative method of compliance to the AD-required actions using the procedures found in 14 CFR 39.19.

To address this misunderstanding and misinterpretation of the Airworthy Product paragraph, we have changed that paragraph and retitled it “Contacting the Manufacturer.” This paragraph now clarifies that for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the FAA, Transport Canada Civil Aviation (TCCA), or Bombardier’s TCCA Design Approval Organization (DAO). Where necessary throughout this AD, we also replaced any reference to approvals of corrective actions with a reference to the Contacting the Manufacturer paragraph.

The Contacting the Manufacturer paragraph also clarifies that, if approved by the DAO, the approval must include the DAO-authorized signature. The DAO signature indicates that the data and information contained in the document are TCCA-approved, which is also FAA-approved. Messages and other information provided by the manufacturer that do not contain the DAO-authorized signature approval are not DAO-approved, unless TCCA directly approves the manufacturer’s message or other information.

This clarification does not remove flexibility previously afforded by the Airworthy Product paragraph. Consistent with long-standing FAA policy, such flexibility was never intended for required actions. This is also consistent with the recommendation of the Airworthiness Directive Implementation Aviation Rulemaking Committee to increase flexibility in complying with ADs by identifying those actions in manufacturers' service instructions that are "Required for Compliance" with ADs. We continue to work with manufacturers to implement this recommendation. But once we determine that an action is required, any deviation from the requirement must be approved as an alternative method of compliance.

Other commenters to the NPRM discussed previously, Directorate Identifier 2012-NM-101-AD (78 FR 78285, December 26, 2013), pointed out that in many cases the foreign manufacturer's service bulletin and the foreign authority's MCAI might have been issued some time before the FAA AD. Therefore, the DOA might have provided U.S. operators with an approved repair, developed with full awareness of the unsafe condition, before the FAA AD is issued. Under these circumstances, to comply with the FAA AD, the operator would be required to go back to the manufacturer's DOA and obtain a new approval document, adding time and expense to the compliance process with no safety benefit.

Based on these comments, we removed the requirement that the DAH-provided repair specifically refer to this AD. Before adopting such a requirement, the FAA will coordinate with affected DAHs and verify they are prepared to implement means to ensure that their repair approvals consider the unsafe condition addressed in this AD.

Any such requirements will be adopted through the normal AD rulemaking process, including notice-and-comment procedures, when appropriate. We also have decided not to include a generic reference to either the “delegated agent” or “DAH with State of Design Authority design organization approval,” but instead we have provided the specific delegation approval granted by the State of Design Authority for the DAH in the Contacting the Manufacturer paragraph.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (78 FR 75291, December 11, 2013) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 75291, December 11, 2013).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

### **Costs of Compliance**

We estimate that this AD affects 94 airplanes of U.S. registry.

We also estimate that it will take about 7 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$117 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$66,928, or \$712 per product.



According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2013-1025>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2014-13-18 Bombardier, Inc.:** Amendment 39-17894. Docket No. FAA-2013-1025; Directorate Identifier 2013-NM-096-AD.

**(a) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc., Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes; certificated in any category; serial numbers 003 through 672 inclusive with a beta warning horn (BWH) (Mod 8/2852) incorporated; except for airplanes that have incorporated Bombardier option CR873CH00003, CR873CH00005, CR873SOO8112, or MS8Q902206.

**(d) Subject**

Air Transport Association (ATA) of America Code 31, Instruments; Code 76, Engine Controls.

**(e) Reason**

This AD was prompted by a report of a BWH system failing to activate when the beta mode was triggered. We are issuing this AD to prevent the inadvertent activation of

ground beta mode during flight, which could lead to engine overspeed, engine damage or failure, and consequent reduced controllability of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Terminating Modification**

Within 6,000 flight hours or 36 months, whichever occurs first, after the effective date of this AD: Modify the BWH microswitch installation by replacing the existing BWH microswitch installation bracket with a new bracket having part number 87610164-003, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-76-33, dated December 13, 2012.

**(h) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your

appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(i) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2012-01R1, dated March 6, 2013, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-1025-0002>.

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 8-76-33, dated December 13, 2012.

(ii) Reserved.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on June 25, 2014.

Jeffrey E. Duven,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2014-15952 Filed 07/14/2014 at 8:45 am; Publication Date: 07/15/2014]